

Elementary Statistics
Group B

Sheet 3

- 1- Which of the following is NOT a measure of central tendency?
 - A. mean
 - B. median
 - C. variance
 - D. mode

- 2- The most frequently occurring value in a set of data is called the _____.
 - A. mean
 - B. median
 - C. variance
 - D. mode

- 3- Which of the following is an appropriate measure of central tendency for nominal data?
 - A. mode
 - B. mean
 - C. median
 - D. coefficient of variation

- 4- The middle value in an ordered array of numbers is called the _____.
 - A. mode
 - B. mean
 - C. median
 - D. variance

- 5- actual blood pressure values for nine randomly selected individuals are:
118.6 127.4 138.4 130.0 113.7 122.0 108.3 131.5 133.2
the median equal:
 - A. 124.7889
 - B. 127.4
 - C. 128.7
 - D. 122.0
 - E. the median is not defined for this data set

- 6- The mean, median, and mode for the following set of data are all the same value (20). Data: 18, 19, 20, 20, 21, 22. If the highest number were changed from 22 to 322, which of the following would be most affected?
 - A. mean
 - B. 8median
 - C. mode
 - D. sample size

- 7- In its Industry Norms and Key Business Ratios, Dun & Bradstreet reported that Q_1 , Q_2 , and Q_3 for 2,037 gasoline service stations' sales to inventory ratios were 20.8, 33.4, and 53.8, respectively. From this we can conclude that _____.
- A. 68% of these service stations had sales to inventory ratios of 20.8 or less
 - B. 50% of these service stations had sales to inventory ratios of 33.4 or less
 - C. 50% of these service stations had sales to inventory ratios of 53.8 or more
 - D. 95% of these service stations had sales to inventory ratios of 20.8 or more
- 8- In its Industry Norms and Key Business Ratios, Dun & Bradstreet reported that Q_1 , Q_2 , and Q_3 for 577 motorcycle dealers' current ratios were 1.3, 1.6 and 2.9, respectively. From this we can conclude that _____.
- A. 68% of these dealers had current ratios between 1.3 and 2.9
 - B. 95% of these dealers had current ratios between 1.3 and 2.9
 - C. 50% of these dealers had current ratios between 1.3 and 2.9
 - D. 75% of these dealers had current ratios between 1.3 and 2.9
- 9- In its Industry Norms and Key Business Ratios, Dun & Bradstreet reported that Q_1 , Q_2 , and Q_3 for 577 motorcycle dealers' current ratios were 1.3, 1.6 and 2.9, respectively. From this we can conclude that _____.
- A. 68% of these dealers had current ratios of 1.6 or less
 - B. 95% of these dealers had current ratios of 2.9 or less
 - C. 50% of these dealers had current ratios of 2.9 or more
 - D. 75% of these dealers had current ratios of 1.3 or more
- 10- Albert Abbasi, VP of Operations at Ingleside International Bank, is evaluating the service level provided to walk-in customers. Accordingly, his staff prepared the following distribution of waiting time for walk-in customers.

Waiting Time (in minutes)	Number of Customers
0-under 2	60
2-under 4	30
4-under 6	10

- The mean waiting time for this sample of walk-in customers is _____.
- A. 2 minutes
 - B. 66.67 minutes
 - C. 33.33 minutes
 - D. 3 minutes

Answer the following

- 1- A statistics student made the following grades on 5 tests: 84, 78, 88, 78, and 72. What are the mean, mode and median grades?
- 2- A commuter travels many miles to work each morning. She has timed this trip 5 times during the last month. The time (in minutes) required to make this trip was 34, 39, 41, 35, and 41. Find the sample mean, median and modal time required for this trip .
- 3- Abel Alonzo, Director of Human Resources, is exploring employee absenteeism at the Batesville Bottling during the last operating year. A sample of six personnel records produced the following data: 0, 2, 4, 7, 2, 9. Find the sample mean, median and the modal number absences per employee.
- 4- Find the mode of each of the following data, provided, of course, that it exists:
 - a. 6, 8, 6, 5, 5, 7, 7, 9, 7, 6, 8, 4, and 7
 - b. 57, 39, 54, 30, 46, 22, 48, 35, 27, 31, and 23
 - c. 11, 15, 13, 114, 12, 10, 11, 12, 13, 11, and 13
- 5- Following are the high-temperature readings in twelve European capitals on a recent day in the month of June: 90, 75, 86, 77, 85, 72, 78, 79, 94, 82, 74, and 93 find Q_1 , Q_2 , and Q_3
- 6- find the 30th, 60th, 75th, and 90th percentiles and the first, second and third quartile of each of the following data sets:
 - a. 7, 3, 5, 8, 9, 4, 12, 15, 17, 18, 20, 22, 23, 29, 30
 - b. 3, 5, 6, 7, 9, 23, 28, 35, 40, 55
- 7- Among the students graduating from a university, 45 majoring in computer science had job offers averaging 31,100. 63 majoring in mathematics had job offers averaging 30,700. 112 majoring in engineering had job offers averaging 35,000 and 35 majoring in chemistry had job offers averaging 30,400. Find the mean job offer received by these 255 students.
- 8- There are three sections of a course in European history, with 19 students in the section meeting at 9 a.m. 27 in the section meeting at 11 a.m. , and 24 in the section meeting at 1 p.m. if the students in 9 a.m. class averaged 66 in the midterm exam, those in the 11 a.m. class averaged 71, and those in the 1p.m. class averaged 63, what is the mean score for all three sections combined?
- 9- The ages of students in a class have been put into the frequency distribution below.

Age	Number of Students
18	3
19	5
20	28
21	4

What is the average age of these students?

- 10- following is the distribution of the number of mistakes that a sample of 80 graduate students made in translating a passage from French to English as part of the language requirement for an advanced degree

Number of mistakes	Number of students
0-	34
5-	20
10-	15
15-	9
20-	2

Calculate:

- a) the mode
- b) the mean
- c) the median
- d) first quartile
- e) 60th percentile

- 11- If you have the following frequency table:

classes	Frequency
10-	6
20-	11
30-	5
40-	6
50-	2

Draw the ogiv and from it determine:

- a) the median
- b) the first quartile
- c) the third quartile

- 12- An instructor is evaluating the performance of students on a test. He records the number of points that each student missed and created a frequency distribution. This is provided below:

Points missed	Number of students
0-under 10	2
10-under 20	4
20-under 30	10
30-under 40	8
40-under 50	6

What is the mean, the median and the mode?